SID-Gibson Canyon Public Water System

2011 Annual Water Quality Report

Solano Irrigation District welcomes this yearly opportunity to communicate our commitment to delivering quality water to our SID-Gibson Canyon PWS customers. Your surface water is supplied from Lake Berryessa. Public involvement in SID decisions is welcome. SID Board meetings are held regularly the third Tuesday of the month at 7:00 p.m. at 810 Vaca Valley Parkway, Suite 201, Vacaville, CA 95688.

This report tells you that after testing for over 100 different constituents, your drinking water supply meets all health related standards established by the California Department of Public Health, and the U.S. Environmental Protection Agency.

All source waters used for drinking water are required to be assessed for the vulnerability to possible contaminants. A Source Water Assessment for Lake Berryessa was completed in 2003. The source is considered most vulnerable to the following activities not associated with any detected contaminants: illegal activities/dumping, herbicide application, and urban/agricultural runoff. A summary of the assessment can be obtained by contacting SID.

For more information, contact Sue Murphy-Water Quality Specialist, 707-455-4021.

Este informe contiene información muy importante sobre su agua potable.

Tradúzcalo ó hable con alguien que lo entienda bien.

TERMS USED IN THIS REPORT:

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (USEPA).

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

ppm: parts per million or milligrams per liter (mg/L)

ppb: parts per billion or micrograms per liter (ug/L)

Primary Drinking Water Standards (PDWS): MCLs or MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect health at the MCL levels.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Notification Level (NL): Health based advisory level set by the Department for constituents with no MCL. This is not an enforceable standard, although requirements and recommendations may apply if detected above this level.

Variances and Exemptions: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

NA: not applicable

ND: not detectable at testing limit

pCi/L: picocuries per liter

µS/cm: microsiemens per centimeter

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring

minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- *Microbial contaminants*, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *Inorganic contaminants*, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- *Pesticides and herbicides*, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, that are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.
- *Radioactive contaminants*, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, USEPA and the CA Department of Public Health (CDPH) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. CDPH regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

The tables below list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. CDPH allows systems to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

TABLE 1 - SAMPLING RESULTS SHOWING THE DETECTION OF BACTERIA

Microbiological Constituents	Highest No. of detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	(In a mo.) 0	0	More than 1 sample in a month with a detection	0	Naturally present in the environment
E. coli	(In the year) 0	0	A routine sample and a repeat sample detect total coliform and either sample also detects E. coli	0	Human and animal fecal waste

TABLE 2 – CUSTOMER TAP SAMPLING RESULTS FOR LEAD AND COPPER

Lead and Copper (reporting units)	No. of samples collected	90th percentile level detected	No. of sites exceeding AL	AL	PHG	Typical Source of Constituent
Lead (ppb) 8/19/11	10	1.6	0	15	2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm) 8/19/11	10	0.28	0	1.3	0.30	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives

TABLE 3 - SAMPLING RESULTS FOR SODIUM AND HARDNESS

Constituent (reporting units)	Sample Date	Average Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Constituent
Sodium (ppm)	3/17/11	25	25	none	none	Generally found in ground & surface water
Hardness (ppm)	3/17/11	180	180	none	none	Generally found in ground & surface water

TABLE 4 - DETECTION OF CONSTITUENTS WITH A PRIMARY DRINKING WATER STANDARD

Constituent (reporting units)	**Sample Date**	**Average Level Detected**	**Range of Detections**	**MCL [MRDL]**	**PHG (MCLG) [MRDLG]**	**Typical Source of Constituent**
Arsenic (ppb)	3/17/11	1.0	1.0	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronic production wastes
Barium (ppm)	3/17/11	0.052	0.052	1	2	Discharge of oil drilling wastes, metal refineries; erosion of natural deposits
Copper (ppm)	3/17/11	0.0042	0.0042	AL=1.3	0.30	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride (ppm)	3/17/11	0.11	0.11	2.0	1	Erosion of natural deposits
Disinfection Byproducts, Disinfectant Residuals, and Disinfection Byproduct Precursors in Distribution System						
Total Trihalomethanes (ppb)	Quarterly 2011	61.8	43-76	80[1]	NA	By-product of drinking water chlorination
Haloacetic Acids (ppb)	Quarterly 2011	40.5	25-51	60[1]	NA	By-product of drinking water chlorination
Chlorine (ppm)	Monthly 2011	1.17	0.4-1.9	[4.0]	[4]	Drinking water disinfectant added for treatment

TABLE 5 - DETECTION OF CONSTITUENTS WITH A SECONDARY DRINKING WATER STANDARD

Constituent (reporting units)	**Sample Date**	**Average Level Detected**	**Range of Detections**	**MCL**	**PHG (MCLG)**	**Typical Source of Constituent**
Chloride (ppm)	3/17/11	15	15	500	NA	Runoff/leaching from natural deposits; seawater influence
Color (units)	3/17/11	3	3	15	NA	Naturally-occurring organic materials
Copper (ppm)	3/17/11	0.0042	0.0042	1.0	NA	Internal corrosion of household plumbing systems
Specific Conductance (µS/cm)	3/17/11	450	450	1600	NA	Substances that form ions when in water; seawater influence
Sulfate (ppm)	3/17/11	44	44	500	NA	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	3/17/11	230	230	1000	NA	Runoff/leaching from natural deposits
Turbidity (units)	3/17/11	0.067	0.067	5	NA	Soil runoff

TABLE 6 - SAMPLING RESULTS RELATED TO TREATMENT OF SURFACE WATER

Treatment Technique (Type of approved filtration technology used)	Membrane Microfiltration
Turbidity Performance Standards (that must be met through the water treatment process)	Turbidity of the filtered water must: 1 – Be less than or equal to 0.1 NTU in 95% of measurements in a month. 2 – Not exceed 1.0 NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	100%
Highest single turbidity measurement during the year	0. 04 NTU
Number of violations of any surface water treatment requirements	0

[1] Compliance is based on a running annual average (RAA).

Additional General Information on Drinking Water

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that the water poses a health risk.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. More information about contaminants, potential health effects, and reducing risks can be obtained by calling the USEPA's Safe Drinking Water Hotline 1-800-426-4791.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. SID-Gibson Canyon is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water is sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you my wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://epa.gov/safewater/lead.

Drinktap.org

We monitor for more than 100 constituents, and must meet close to 90 regulations for water safety and quality. Those standards are among the world's most stringent. Our water supplies are tested every day. Tap water undergoes far more frequent testing than bottled water. Tap water protects us against the threat of fire, and the infrastructure needs constant attention to keep life-saving water flowing at the right pressure, 24/7, without fail. Our water bills pay to keep the water system strong, reliable and there for us whenever we turn it on.

SOLANO WATER

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